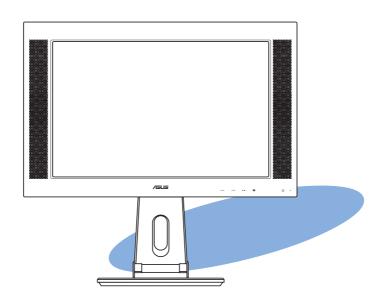
PW191 LCD Monitor User Guide



E2322

First Edition V1 December 2005

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Notices

Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

As an Energy Star® Partner, our company has determined that this product meets the Energy Star® guidelines for energy efficiency.

Canadian Department of Communications Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This class B digital apparatus complies with Canadian ICES-003.

Safety information

- Before setting up the monitor, carefully read all the documentation that came with the package.
- To prevent fire or shock hazard, never expose the monitor to rain or moisture.
- Never try to open the monitor cabinet. The dangerous high voltages inside the monitor may result in serious physical injury.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- Slots and openings on the back or top of the cabinet are provided for ventilation. Do not block these slots. Never place this product near or over a radiator or heat source unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
- Use the appropriate power plug which complies with your local power standard.
- Do not overload power strips and extention cords. Overloading can result in fire or electric shock.
- Avoid dust, humidity, and temperature extremes. Do not place the monitor in any area where it may become wet. Place the monitor on a stable surface.
- Unplug the unit during a lightning storm or if it will not be used for a long period of time. This will protect the monitor from damage due to power surges.
- Never push objects or spill liquid of any kind into the slots on the monitor cabinet.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC.
- If you encounter technical problems with the monitor, contact a qualified service technician or your retailer.

Care & Cleaning

- Before you lift or reposition your monitor, it is better to disconnect the cables and power cord. Follow the correct lifting techniques when positioning the monitor. When lifting or carrying the monitor, grasp the edges of the monitor. Do not lift the display by the stand or the cord.
- Cleaning. Turn your monitor off and unplug the power cord. Clean the monitor surface with a lint-free, non-abrasive cloth. Stubborn stains may be removed with a cloth dampened with mild cleaner.
- Avoid using a cleaner containing alcohol or acetone. Use a cleaner intended for use with the LCD. Never spray cleaner directly on the screen, as it may drip inside the monitor and cause an electric shock.

The following symptoms are normal with the monitor:

- The screen may flicker during the initial use due to the nature of the fluorescent light. Turn off the Power Switch and turn it on again to make sure that the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- When the same image is displayed for hours, an afterimage of the previous screen may remain after switching the image. The screen will recover slowly or you can turn off the Power Switch for hours.
- When the screen becomes black or flashes, or cannot work anymore, contact your dealer or service center to fix it. Do not repair the screen by yourself!

Conventions used in this guide



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Information that you MUST follow to complete a task.



NOTE: Tips and additional information to aid in completing a task.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. ASUS websites

The ASUS websites worldwide provide updated information on ASUS hardware and software products. Refer to http://www.asus.com

2. Optional documentation

Your product package may include optional documentation, such as warranty card, that may have been added by your dealer. These documents are not part of the standard package.

Package contents

Check your PW191 LCD package for the following items:

- ✓ LCD monitor
- ✓ Quick Start Guide
- ✓ Support CD
- ✓ 1 x Power cord
- ✓ 1 x Power adapter
- √ 1 x VGA cable
- ✓ 1 x DVI cable
- ✓ 1 x Audio cable
- √ 1 x Rear connector cover



If any of the above items is damaged or missing, contact your retailer immediately.

Chapter 1

This chapter gives a general description of the ASUS LCD monitor PW191. The chapter lists the monitor features including introduction on the front and rear panels.

1.1 Welcome!

Thank you for purchasing the ASUS® PW191 LCD monitor!

The latest widescreen LCD monitor from ASUS provides a crisper, broader, and brighter display, plus a host of features that enhance your viewing experience. You can turn the ASUS® PW191 LCD monitor counterclockwise for portrait orientation, giving you a full view of documents and web pages, and saving you the trouble of having to scroll the bar while you read or surf the Internet. The PW191 also features a rotating swivels, adjustable tilt and height, and an anti-glare panel that protects your eyes and makes your monitor easy to clean. Smart sensor buttons on the front panel are shown in weak LED lights until you touch them, elegance and stylish functionality of the PW191.

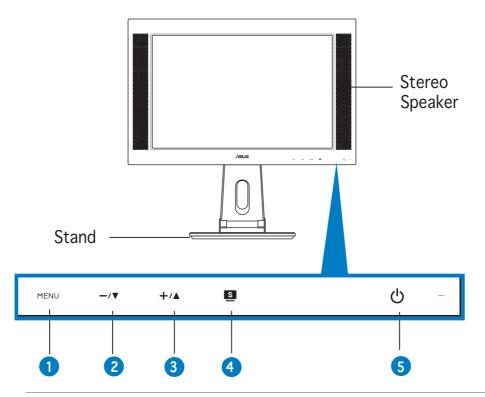
With these features, you enjoy the convenience and delightful visual experience that the PW191 brings you!

1.2 Features

- 19" Widescreen LCD Monitor
- Recommended resolution: 1440 X 900
- Anti-reflection glare type panel
- 8ms (Tr+Tf) Quick response time
- SPLENDID™ Video Enhancement Technology
- 5 Video preset modes switiched by hotkey
- 3 Skin-tones selection
- Flexible display orientation including portrait/landscape
- Tilt/height adjustment
- Swivel/90° rotation
- Microsoft Windows® 2000/XP compliance
- VESA Display Data Channel DDC2B compliance
- VESA wall mount compliance (100x100mm)
- EPA ENERGY STAR® and ergonomic design
- Touch sensor buttons
- Both VGA and DVI-D Inputs
- 2W x 2 Stereo speakers and earphone output
- RoHS compliance

1.3 Monitor introduction

Front of the LCD monitor





The touch sensors are sensitive. Slight touch the function you want to enable. Do not press the front panel too hard to prevent damage to the panel and the sensors.

1. MENU Sensor:

• Touch this sensor to enter/select the icon (function) highlighted while the OSD menu is activated.

2. -/▼ Sensor:

- Touch this sensor to decrease the value of the function selected or move to the previous fuction.
- This is also a hotkey for Volume adjustment.

3. +/▲ Sensor:

- Touch this sensor to increase the value of the function selected or move to the next function.
- This is also a hotkey for Brightness adjustment.

4. ■ Sensor:

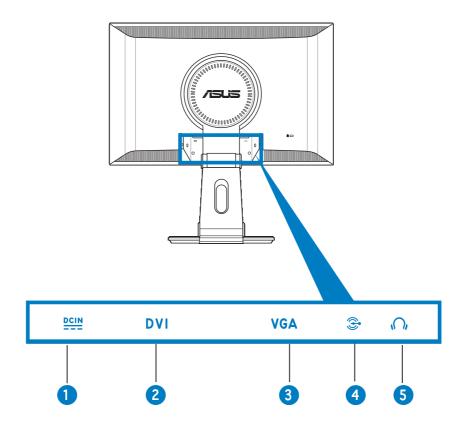
- Use this hotkey to switch from five video preset modes (Game Mode, Night View Mode, Scenery Mode, Standard Mode, Theater Mode) with SPLENDID™ Video Enhancement Technology.
- Exit the OSD menu or go back to the previous menu as the OSD menu is active.
- Automatically adjust the image to its optimized position, clock, and phase by touching the sensor for 2-4 seconds.

5. O Power sensor/indicator

Touch this sensor to turn the monitor on/off

Status	Description
Blue	ON
Amber	Standby mode
OFF	OFF

Rear of the LCD monitor



- 1. **DC-in port.** This port connects the power connector from the bundled power adapter.
- 2. **DVI port.** This 24-pin port is for PC (Personal Computer) DVI-D digital signal connection.
- 3. **VGA port.** This 15-pin port is for PC VGA connection.
- 4. **Audio-in port ③.** This port connects PC audio source by the bundled audio cable .
- 5. **Headphone port** This port connects a headphone with a stereo mini-plug (3.5mm).



The headphone is purchased separately.

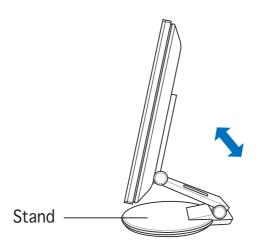
Chapter 2

This chapter provides instructions on how to correctly connect cables and properly adjust the tilt of the LCD monitor.

Setup

2.1 Unfolding the monitor

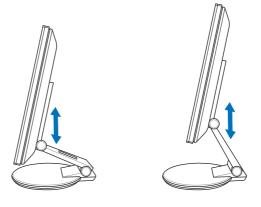
The monitor is folded in the package. To unfold the monitor, hold the stand with one hand and carefully tilt the monitor forward with the other hand.



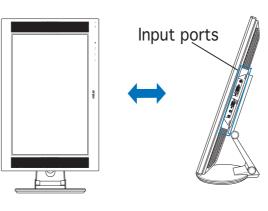
2.2 Connecting the cables

To connect the cables:

1. Adjust the monitor to your desired height and tilt.



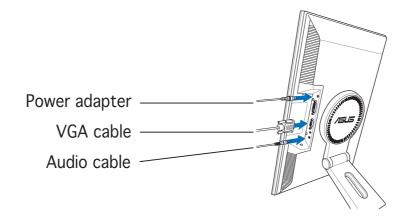
2. Turn the monitor 90° counterclockwise so you can clearly see the ports at the bottom of the rear panel.



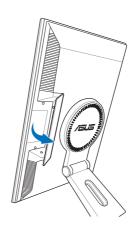
Front view

Side view

3. Connect the cables as shown:



- To connect the audio cable: connect one end of the audio cable to the monitor's Audio-in port, and then connect the other end to the computer multi-media (or audio) card's audio output.
- To connect the power adapter: first, connect the adapter cord securely to the monitor's DC-in port. Then, connect the power plug to the adapter port with the other end to a power outlet.
- To connect the VGA cable:
 - a. Plug the VGA/DVI connector to the LCD monitor's VGA/DVI port.
 - b. Connect the other end of the VGA/DVI cable to your computer's VGA/DVI port.
 - c. Tighten the two screws to secure the VGA/DVI connector.
- 4. Close the rear connector cover.
 Align the cover to the three slots near the ports and close the cover carefully. A click indicates that the cover has been closed successfully.



2.3 Turning the monitor on

Gently touch the power sensor \circlearrowleft . See page 1-4 for the location of the power sensor. The power indicator \circlearrowleft lights up in blue to show that the monitor is ON.

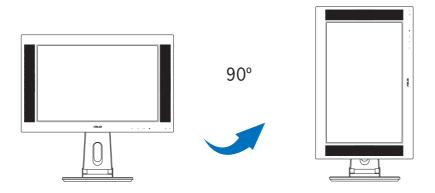
2.4 Adjusting the monitor

You can adjust the monitor to several directions as shown below.

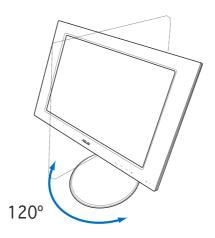
- For optimal viewing, we recommend that you look at the full face of the monitor, then adjust the monitor to the angle that is most comfortable for you.
- Hold the stand to prevent the monitor from falling when you change its angle.
- You can adjust the monitor's angle from -5° to 25°.



• You can also turn the monitor 90° counterclockwise.



• The stand allows you to turn the monitor left/right up to 120°.



2.5 Detaching the stand (for VESA wall mount)

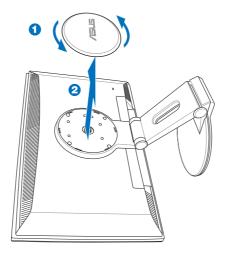
The detachable stand of the PW191 monitor is specially designed for VESA wall mount.

To detach the stand:

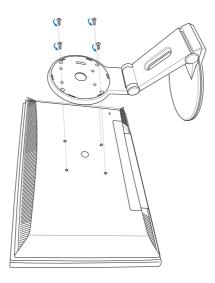
- 1. Turn the VESA cover counterclockwise to open it.
- 2. Remove the VESA cover from the stand.



Have the front of the monitor face down to make the detachment safer and easier. We recommend that you cover the surface with soft cloth to prevent damage to the monitor.



3. Use a screwdriver to remove the four screws on the stand of the monitor.





The VESA wall mount (100 mm \times 100 mm) is purchased separately.

Chapter 3

This chapter introduces the operating instruction, including how to use the OSD (On-Screen Display) menu and the Pivot®Pro software.

nstruction enera

3.1 OSD (On-Screen Display) menu

3.1.1 How to reconfigure

1. Touch the MENU sensor to activate the OSD menu.



- 2. Touch +/▲ and -/▼ to navigate through the functions. Highlight and activate the desired function by touching the MENU sensor. If the function selected has a sub-menu, touch +/▲ and -/▼ again to navigate through the sub-menu functions. Highlight and activate the desired sub-menu function by touching the MENU sensor.
- 3. Touch $+/\blacktriangle$ and $-/\blacktriangledown$ to change the settings of the selected function.
- 4. To exit the OSD menu, touch the sensor. Repeat step 2 and step 3 to adjust any other function.

3.1.2 OSD Function Introduction

1. Spendid

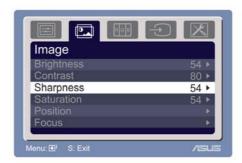
This function contains five sub-functions you can select for your preference.



- Scenery Mode: advance for scenery use with SPLENDID™ Video Enhancement.
- **Standard Mode:** advance for general Window use with SPLENDID™ Video Enhancement.
- Theater Mode: advance for movie use with SPLENDID™ Video Enhancement.
- **Game Mode:** advance for game use with SPLENDID™ Video Enhancement.
- Night View Mode: advance for dark-display use with SPLENDID™ Video Enhancement.

2. Image

You can adjust brightness, contrast, sharpness, saturation, position (VGA only), and focus (VGA only) from this main function.



- Brightness: the adjusting range is from 0 to 100. +/▲ is a hotkey to activate this function.
- **Contrast:** the adjusting range is from 0 to 100.
- **Sharpness:** the adjusting range is from 0 to 100.
- **Saturation:** the adjusting range is from 0 to 100.
- **Position:** adjusts the horizontal postition (H-Position) and the vertical position (V-Position) of the image. The adjusting range is from 0 to 100.
- **Focus:** reduces Horizonal-line noise and Vertical-line noise of the image by adjusting (Phase) and (Clock) separately. The adjusting range is from 0 to 100.



- Phase adjusts the phase of the pixel clock signal. With a wrong phase adjustment, the screen shows horizontal disturbances.
- Clock (pixel frequency) controls the number of pixels scanned by one horizontal sweep. If the frequency is not correct, the screen shows vertical stripes and the image is not proportional.

3. Color

Select the image color you like from this function.



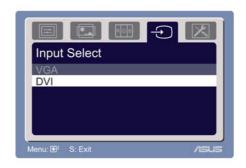
- **Color Temp.:** contains five color modes including Cool, Normal, Warm, sRGB, and User mode.
- **Skin Tone:** contains three color modes including Reddish, Natural, and Yellowish.



In the User mode, colors of R (Red), G (Green), and B (Bluee) are user-configurable; the adjusting range is from 0-100.

4. Input Select

In this function, you can select either VGA or DVI input source.



5. System Setup

Allow you to adjust the system.



- **Volume:** the adjusting range is from 0 to 100. —/▼ is a hotkey to activate this function.
- **OSD Setup:** adjusts the horizontal postition (H-Position) and the vertical position (V-Position) of the OSD. The adjusting range is from 0 to 100. In the OSD Timeout selection, you can adjust the OSD timeout from 10 to 120.
- Language: there are ten languages for your selection, including English, German, Italian, French, Dutch, Spanish, Russian, Traditional Chinese, Simplified Chinese, and Japanese.
- **Information:** shows the monitor information.
- **Reset:** Yes allows you to revert to the factory mode. No allows you to keep the current state.

3.2 Pivot®Pro Software

- Pivot®Pro is a software that is designed for rotatable monitors. With this software, you can rotate the image by 90°, 180°, and 270° to meet the orientation of the monitor.
- Before starting to use this software, install Pivot®Pro into your PC.
- The Pivot®Pro software is bundled in the support CD.

• Installation instructions:

- 1. Close all other applications first.
- 2. Make sure your graphics card manufacturer's (native) drivers are installed before you install the Pivot®Pro software.
- 3. Insert the support CD into the optical drive and run the START_PIVOT program.
- This software only supports Windows® 98SE, ME, NT 4.0, 2000, and XP operating systems.
- After the installation, you can set up hotkeys for different rotation degrees by pressing the right mouse button -->enter Properties --> Settings --> Advanced -->Pivot Software -->Hotkeys.
- The default hotkeys for each degree are as follows:

```
Rotate - Ctrl + Shift + R

0° - Ctrl + Shift + 0

90° - Ctrl + Shift + 9

180° - Ctrl + Shift + 8

270° - Ctrl + Shift + 7
```

For more information or help, please go to <u>www.portrait.com</u>.

3.3 Trouble Shooting (FAQ)

Problem	Possible Solution
Power LED is not ON	 Touch the sensor to check if the monitor is in the ON mode. Check if the power cord is properly connected to the monitor and the power outlet.
The Power LED lights amber and there is no screen image	 Check if the monitor and the computer are in the ON mode. Make sure the signal cable is properly connected the monitor and the computer. Inspect the signal cable and make sure none of the pins are bent. Connect the computer with another available monitor to check if the computer is properly working.
Screen image is too light or dark	Adjust the Contrast and Brightness settings via OSD.
Screen image is not centered or sized properly	 Touch the sensor for two seconds to automatically adjust the image. Adjust the H-Position or V-Position settings via OSD.
Screen image bounces or a wave pattern is present in the image	 Make sure the signal cable is properly connected to the monitor and the computer. Move electrical devices that may cause electrical interference.
Screen image has color defects (white does not look white)	 Inspect the signal cable and make sure that none of the pins are bent. Perform Reset via OSD. Adjust the R/G/B color settings or select the Color Temperature via OSD.
Screen image is blurry or fuzzy	 Touch the sensor for two seconds to automatically adjust the image. Adjust the Phase and Clock settings via OSD.
No sound or sound is low	 Ensure that the audio cable is properly connected to the monitor and the computer Adjust the volume settings of both your monitor and computer. Ensure that the computer sound card driver is properly installed and activated.
Pivot® is not working	 Ensure that the Pivot®Pro software is installed in your PC. Make sure that your PC operating system complies to Windows® 98SE, ME, NT 4.0, 2000, and XP.

3.4 PW191 specification summary

Panel Type	TFT LCD (Anti-Reflection Glare Panel)	
Panel size	19" Wide Screen	
Max. Resolution	WXGA + 1440 x 900	
Piixel pitch	0.285mm	
Brightness (Typ.)	300cd/m ²	
Contrast Ratio (Typ.)	500:1	
Viewing angle(H/V)	150°/130°	
Display colors	16.2M	
Response time	8ms (Tr+Tf)	
ZBD (Zero Bright Dot)	Yes	
SPLENDID™ Video Enhancement	Yes	
Splendid selection	5 Video Preset Modes (by hotkey)	
Auto adjustment	Yes (by hotkey)	
Color temperature selection	Cool/Normal/Warm/sRGB/User Mode	
Skin-Tone selection	3 Skin-Tones	
DVI port	24-Pin DVI-D	
VGA port	15-Pin D-Sub	
Audio-in port	3.5mm Mini-jack	
Headphone port	3.5mm Mini-jack	
Colors	Silver + Black	
Speaker (Built-in)	2W x 2 Stereo	
Power LED	Blue (ON)/ Amber (Stand-By)	
Tilt	+90° ~ -5°	
Swivel	+60° ~ -60°	

(continued on the next page)

3.4 PW191 specification summary

Pivot	0° / 90° (Counterclockwise)
Height adjustment	Yes
VESA wall mount	100 x 100mm
Kensington lock	Yes
Power source	AC: 100~240V 50Hz/60Hz
Power consumption	Power On: < 48W, Standby: < 2W, Power Off: < 1W
Net weight	8.5 Kg (approx.)
Dimension	520 mm (W) x 490mm (H) x 285mm (D)
Multi-languages	English, German, Italian, French, Dutch, Spanish, Russian, Traditional Chinese, Simplified Chinese, Japanese
Accessories	VGA cable, DVI cable, Audio Cable, Power adapter, Power Cord, Support CD (bundle Pivot® Pro), Quick Start Guide, Warranty Card (optional)
Regulation approvals	Energy Star®, UL/cUL, CB, CE, FCC, CCC, BSMI, Gost-R, C-Tick, VCCI, RoHS, MIC

^{*} Specifications are subject to change without notice.

3.5 Supported operating modes

Standard	Resolution	Horizontal Frequency	Vertical Frequency	Pixel Frequency
DOS	720 x 400	31.47KHz	70Hz	28.32MHz
VGA	640 x 480	31.47KHz	60Hz	25.18MHz
	640 x 480	37.90KHz	72Hz	31.50MHz
	640 x 480	37.50KHz	75Hz	31.50MHz
SVGA	800 x 600	35.16KHz	56Hz	36.00MHz
	800 x 600	37.90KHz	60Hz	40.00MHz
	800 x 600	48.10KHz	72Hz	50.00MHz
	800 x 600	46.90KHz	75Hz	49.50MHz
XGA	1024 x 768	48.40KHz	60Hz	65.00MHz
	1024 x 768	56.50KHz	70Hz	75.00MHz
	1024 x 768	60.02KHz	75Hz	78.75MHz
SXGA	1280 x 1024	64.00KHz	60Hz	108.00MHz
	1280 x 1024	78.00KHz	75Hz	135.00MHz
VESA	1152 x 864	67.50KHz	75Hz	108.00MHz
VESA (Primary)	1440 x 900	55.94KHz	60Hz	106.00MHz

^{*} Modes not listed in the table may not be supported. For optimal resolution, we recommend that you choose a mode listed in the table above.